LISTING OF CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claim 1 (Canceled).

2.   (Previously Presented) A method according to claim 21 wherein said valid end time is provided by either:

(i) storing said valid end time entered in said database associated with said value for said attribute; or

(ii) determining said valid end time from a valid start time of another value of said attribute stored in said database.

Claims 3-5 (Canceled).

6.   (Previously Presented) A method according to claim 21 comprising providing said values for data entries in a relational database.

Claims 7-10 (Canceled).

11.   (Currently amended) A method according to claim 10 21 wherein for each Time Cube there is a single primary key attribute having associated values over transaction and valid time, and wherein in the Time Cubes there is another, or a plurality of other foreign key attributes having a value, or values, which are valid and/or transaction time dependent.

12.   (Previously presented) A computer-implemented database having a model of entities on said database in which each entity has an associated Time Cube:

i) said Time Cubes comprising at least one attribute having allowable values in X-Time and an associated Y-time, X-time being the whole system time from start of system time to end of system time within which valid time will exist for said entity, and Y-Time being system--generated time representative of transaction time at which specific allowable values are true, and

wherein there are start times in X-time for attributes and end times in X-times for attributes, there being a plurality of start and end times simultaneously stored in the database for at least one value of at least one attribute,

the plurality of start and end times for said attribute being associated with respective different Y-times, and

wherein said model allows insert only events, with update and delete functions being achievable by insert events that do not alter existing start times and end times stored in the database.

Claims 13-20 (Canceled).

21.   (Currently Amended) A computer-implemented method of updating and deleting values of attributes in a database, the database having stored in it a summary position in which attributes have associated with them a valid start time from which the value of the attribute will hold true and a valid end time up to which the value of the attribute will hold true, and a transaction time associated with the summary position at which transaction time the valid start time and valid end time of the value of the attribute are true, the method comprising

performing updating and deleting logical operations on the values of attributes by inserting into the database a new insert summary position with a new particular transaction time without altering any existing summary position, logical update and delete of valid start time and valid end time for a value of an attribute being achieved by inserting the new summary position with a different valid start time or valid end time that is to be true for the new particular transaction time, wherein data relating to each attribute is held in corresponding data-entity associated Time Cubes that comprise valid and transaction time related values for different attributes in different attribute-slices of said Time Cube.

Claim 22 (Canceled).